



CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the U.S. Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on:

Date: May 25, 2006

By: 

Susan L. Baka

**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

IN RE APPLICATION OF:

Thompson, *et al.*

APPLICATION NO.: 10/667,136

FILED: September 17, 2003

FOR: **WIRELESS LAN MEASUREMENT  
FEEDBACK**

EXAMINER: Perez, Julio R.

ART UNIT: 2681

CONFIRM. NO: 7186

**Declaration of Prior Invention Under 37 C.F.R. § 1.131**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA

- I. This Declaration establishes invention prior to January 22, 2003 and diligent reduction to practice, at latest, on September 17, 2003.
- II. This Declaration is being made by Allan Thomson, Sudhir Srinivas, Jamsheed Bugwadia and Pudumane K. Kishan i.e., the named inventors of the above-identified patent application.
- III. **Conception:** Prior to January 22, 2003, we conceived the inventions currently presented in independent claims 1, 37, and 38 of the above-identified patent application. A list of these claims is attached hereto as Exhibit A. Claim 1 is exemplary of an embodiment of the inventions. Exhibit B includes a listing of files related to a product that is representative of the embodiment claimed in the exemplary independent claim 1. Exhibit B is intended to show conception prior to January 22, 2003. Exhibit B includes documentations that were created prior to January 22, 2003. The dates of each file have been redacted. Exhibit B includes the following documents:

**B1: NMS Release 1.0 Functional Specification**

**B2: User Management Screen Shots**

**B3: Trapeze Networks JumpPad Screen Shots**

**B4: NMS-Schedule**

**Exhibit B correlates to the exemplary independent claim 1. These correlations are for the purpose of example only, and not intended to limit the scope of the claims. TABLE 1 provides a rough correlation between Exhibit B and, for example, independent claim 1:**

**TABLE 1**

<b>EXHIBIT B (Examples only)</b>	<b>CLAIM 1</b>
<p><b>B1)</b></p> <ul style="list-style-type: none"> <li>• <b>Planning Network (pg. 7)</b> <ul style="list-style-type: none"> <li>○ The user defines a network plan. The goal is to easily define devices and topological elements like sites, floors, etc. (pg. 7)</li> </ul> </li> <li>• <b>Verifying Network (pg. 7)</b> <ul style="list-style-type: none"> <li>○ The user runs a set of verification tests on the parts of or the entire network configuration. Verification could occur during planning, ...</li> <li>○ The user will verify network configuration during planning.</li> <li>○ The user can run validation algorithms on a planned network to see problems in the network coverage.</li> </ul> </li> <li>• <b>Verification (or validation) of the network occurs at different phases.</b> <ul style="list-style-type: none"> <li>○ Verification, for instance, of network configuration data occurs against the entire plan. (pgs. 53-56).</li> </ul> </li> </ul> <p><b>B4)</b></p> <ul style="list-style-type: none"> <li>• <b>NMS-Schedule</b> <ul style="list-style-type: none"> <li>○ The timeline shows the original project schedule including RF planning, floor wizard, floor layout, and verification.</li> </ul> </li> </ul>	<p><b>A method of verifying a plan for a wireless local area network, comprising:</b></p>

<p><b>B1)</b></p> <ul style="list-style-type: none"> <li>• <b>Planning Network (pg. 7)</b> <ul style="list-style-type: none"> <li>○ The user defines a network plan. The goal is to easily define devices and topological elements like sites, floors, etc and mapping between the two. (pg. 7)</li> </ul> </li> <li>• <b>Verifying Network (pg. 7)</b> <ul style="list-style-type: none"> <li>○ The user runs a set of verification tests on the parts of or the entire network configuration. Verification could occur during planning, ...</li> <li>○ The user will verify network configuration during planning.</li> <li>○ The user can run validation algorithms on a planned network to see problems in the network coverage.</li> <li>○ The user will need to easily detect problems in coverage and use.</li> </ul> </li> <li>• <b>In defining topological objects, the user selects, places, configures site, building, floor or walls. (pg. 31)</b></li> <li>• <b>Verification (or validation) of the network occurs at different phases.</b> <ul style="list-style-type: none"> <li>○ Verification, for instance, of network configuration data occurs against the entire plan. (pgs. 53-56).</li> </ul> </li> </ul> <p><b>B4)</b></p> <ul style="list-style-type: none"> <li>• <b>NMS-Schedule</b> The timeline shows the original project schedule including RF planning, floor wizard, and verification.</li> </ul>	<p><b>receiving measured wireless local area network data;</b></p>
--	--

<p><b>B1)</b></p> <ul style="list-style-type: none"> <li>• <b>Verifying Network (pg. 7)</b> <ul style="list-style-type: none"> <li>○ The user will verify the installation against the planned network. (pg. 7)</li> </ul> </li> <li>• <b>Changes Menu (P.17)</b> <ul style="list-style-type: none"> <li>○ This option allows the user to verify the network plan for configuration errors. The differences between the actual and planned configuration are identified.</li> </ul> </li> <li>• <b>User plans AP deployment (P. 35)</b> <ul style="list-style-type: none"> <li>○ JumpPad will generate an ideal coverage configuration, and show where APs should be placed.</li> </ul> </li> <li>• <b>The user can select an option to run a planning algorithm. In this case the user supplies the desired coverage requirements (e.g. desired bandwidth), and lets the application suggest a configuration. The user can tweak the configuration as needed, and save the configuration changes. (pg. 37)</b></li> <li>• <b>Verification of Network Configuration Data (pgs. 56-59)</b> <ul style="list-style-type: none"> <li>○ The user changes the configuration and the changes will be verified before deployment.</li> </ul> </li> <li>• <b>Changes of Network Configurations (pg. 60)</b> <ul style="list-style-type: none"> <li>○ The user can view or modify the configurations of the devices, VLAN or plan at any time.</li> </ul> </li> </ul> <p><b>B4)</b></p> <ul style="list-style-type: none"> <li>• <b>NMS-Schedule</b> The timeline shows the original project schedule including RF planning, floor wizard changes, AP configuration changes, floor layout, verification, and configuration model updates.</li> </ul>	<p>comparing the measured wireless local area network data with expected wireless local area network data, the expected wireless local area network data generated at least from floor plan data about a site of the wireless local area network, and placement and configuration of a plurality of access points of the wireless local area network; and</p>
--	---

<p><b>B1)</b></p> <ul style="list-style-type: none"> <li>• <b>Application Fundamentals (pg. 8)</b> <ul style="list-style-type: none"> <li>○ The application will communicate the changes to the device.</li> </ul> </li> <li>• <b>Changes Menu (P.17)</b> <ul style="list-style-type: none"> <li>○ This option allows the user to verify the network plan for configuration errors. The differences between the actual and planned configuration are identified.</li> </ul> </li> <li>• <b>User plans AP deployment (P. 35)</b> <ul style="list-style-type: none"> <li>○ JumpPad will generate an ideal coverage configuration, and show where APs should be placed.</li> </ul> </li> <li>• <b>Deploy Changes to Network (pg. 41)</b> <ul style="list-style-type: none"> <li>○ The user reviews changes, and if there are further changes that need to be done, he can go back the changes again.</li> </ul> </li> <li>• <b>Verification of Network Configuration Data (pgs. 56-59)</b> <ul style="list-style-type: none"> <li>○ The user changes the configuration and the changes will be verified before deployment.</li> </ul> </li> <li>• <b>Network Configuration Support (pg. 60)</b> <ul style="list-style-type: none"> <li>○ The user can modify the configuration of the device, VLAN or plan at any time.</li> </ul> </li> </ul> <p><b>B4)</b></p> <ul style="list-style-type: none"> <li>• <b>NMS-Schedule</b> The timeline shows the original project schedule including RF planning, floor wizard changes, AP configuration changes, floor layout, verification, and configuration model updates.</li> </ul>	<p>based at least on the measured wireless local area network data, changing one or more of: the floor plan data about the site of the wireless local area network, the quantity of the plurality of access points, the placement of the plurality of access points, and the configuration of the plurality of access points.</p>
--	---

**IV. Diligence:** We diligently constructively reduced the invention to practice on September 17, 2003. Attached, with dates redacted, as Exhibits C1 through C4 (collectively "Exhibit C") are exemplary documents produced between January 22, 2003 and constructive reduction to practice on September 17, 2003. It should be noted that Exhibit C1 and B4 are the same. The date associated with this document is a range that extends from before January 22, 2003, making it suitable for showing conception, and to after January 22, 2003, making it suitable for showing diligence. These documents are in chronological order, and have redacted dates which occurred at irregular intervals but without interruption extending from our conception of the invention to our constructive reduction to practice of the invention. Exhibit C includes the following documents:

**C1: NMS-Schedule**

**C2: NMS 1.0 Software Design Specification**

**C3: Ringmaster Release 1.1 Functional Specification**

**C4: Ringmaster 2.0 Functional Specification**

**Exhibit C correlates to the exemplary independent claim 1. These correlations are for the purpose of example only, and not intended to limit the scope of the claims. TABLE 2 provides a rough correlation between Exhibit C and, for example, independent claim 1:**

**TABLE 2**

EXHIBIT C (Examples only)	CLAIM 1
<p><b>C1)</b></p> <ul style="list-style-type: none"> <li>• <b>NMS-Schedule</b> The timeline shows the original project schedule including RF planning, floor wizard, floor layout, and verification.</li> </ul> <p><b>C2)</b></p> <ul style="list-style-type: none"> <li>• <b>RF Verification (pg. 23)</b> <ul style="list-style-type: none"> <li>○ RF verification involves verifying whether all APS are connected to the correct DPs as planned/configured.</li> <li>○ RF verification requires an API to the wireless NIC to obtain required measurements readings.</li> </ul> </li> <li>• <b>AP Visibility Verifier Wizard (pg. 34)</b> <ul style="list-style-type: none"> <li>○ JumpPad will send the request to one AP at a time to get the neighbors information.</li> </ul> </li> <li>• <b>Following are the steps that JumpPad will take to verify the RF wired topology (pg. 36)</b> <ul style="list-style-type: none"> <li>○ User requests to verify AP visibility;</li> <li>○ JumpPad requests neighbor AP information from each of the AP; and</li> <li>○ JumpPad creates a report to show the difference between the projected visibility and actual visibility.</li> </ul> </li> </ul> <p><b>C4)</b></p> <ul style="list-style-type: none"> <li>• <b>Network Topology Verification</b> <ul style="list-style-type: none"> <li>○ Network topology verification is an important feature in Ringmaster. (pg. 13).</li> </ul> </li> </ul>	<p><b>A method of verifying a plan for a wireless local area network, comprising:</b></p>



<p><b>C1)</b></p> <ul style="list-style-type: none"> <li>• <b>NMS-Schedule</b> The timeline shows the original project schedule including RF planning, floor wizard, and verification.</li> </ul> <p><b>C2)</b></p> <ul style="list-style-type: none"> <li>• <b>RF Verification (pg. 23)</b> <ul style="list-style-type: none"> <li>○ RF verification involves verifying whether all APS are connected to the correct DPs as planned/configured.</li> <li>○ RF verification requires an API to the wireless NIC to obtain required measurements readings.</li> </ul> </li> <li>• <b>RF Verification (pg. 24)</b> <ul style="list-style-type: none"> <li>○ RF Verification Tool requires an ability to import RF measurement readings into JumpPad.</li> </ul> </li> <li>• <b>AP Visibility Verifier (pgs. 34 and 36)</b> <ul style="list-style-type: none"> <li>○ JumpPad will send the request to one AP at a time to get the neighbors information.</li> </ul> </li> <li>• <b>RF Coverage Verifier (pg. 39)</b> <ul style="list-style-type: none"> <li>○ User imports floor information onto existing floor in JumpPad.</li> </ul> </li> </ul> <p><b>C4)</b></p> <ul style="list-style-type: none"> <li>• <b>Network Topology Verification</b> <ul style="list-style-type: none"> <li>○ Network topology verification is an important feature in Ringmaster. (pg. 13).</li> </ul> </li> </ul>	<p><b>receiving measured wireless local area network data;</b></p>
---	--

<p><b>C1)</b></p> <ul style="list-style-type: none"> <li>• <b>NMS-Schedule</b> The timeline shows the original project schedule including RF planning, floor wizard changes, AP configuration changes, floor layout, verification, and configuration model updates.</li> </ul> <p><b>C2)</b></p> <ul style="list-style-type: none"> <li>• <b>RF Planning (pgs. 4 and 5)</b> <ul style="list-style-type: none"> <li>○ RF planning requires an ability to visibly see the difference in deployed network v. actual coverage information. (pg. 4).</li> <li>○ RF planning requires an ability to visibly see the desired network and the coverage obtained by a single AP failure. (pg. 5).</li> </ul> </li> <li>• <b>AP Placement (pg. 20)</b> <ul style="list-style-type: none"> <li>○ AP Placement data is computed.</li> </ul> </li> <li>• <b>Release Matrix (pg. 24)</b> <ul style="list-style-type: none"> <li>○ It allows user to obtain projected signal strength readings at a given measurement point.</li> <li>○ The user will have to go to the location of measurement point, measure data, and come back to JumpPad to type in the data to correct coverage contours.</li> </ul> </li> <li>• <b>AP Visibility Verifier Wizard (pg. 34)</b> <ul style="list-style-type: none"> <li>○ JumpPad will send the request to one AP at a time to get the neighbors information.</li> </ul> </li> <li>• <b>Following are the steps that JumpPad will take to verify the RF wired topology (pg. 36)</b> <ul style="list-style-type: none"> <li>○ JumpPad requests neighbor AP information from each of the AP; and</li> <li>○ JumpPad creates a report to show the difference between the projected visibility and actual visibility.</li> </ul> </li> <li>• <b>RF Coverage Verification Design (pg. 39)</b> <ul style="list-style-type: none"> <li>○ User selects the RF measurement points that need be applied to correction of RF coverage.</li> </ul> </li> </ul>	<p>comparing the measured wireless local area network data with expected wireless local area network data, the expected wireless local area network data generated at least from floor plan data about a site of the wireless local area network, and placement and configuration of a plurality of access points of the wireless local area network; and</p>
---	---

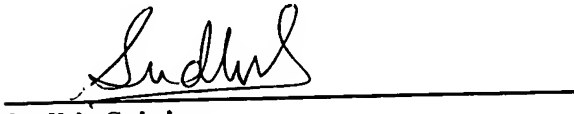
<p><b>C1)</b></p> <ul style="list-style-type: none"> <li>• <b>NMS-Schedule</b> The timeline shows the original project schedule including RF planning, floor wizard changes, AP configuration changes, floor layout, verification, and configuration model updates.</li> </ul> <p><b>C2)</b></p> <ul style="list-style-type: none"> <li>• <b>RF Planning (pg. 5)</b> <ul style="list-style-type: none"> <li>○ The network planner would make changes to the generated plan by moving the pre-defined locations of APs, redefining certain constraints or changing the profile information and regenerate the RF plan.</li> </ul> </li> <li>• <b>Release Matrix (pg. 24)</b> <ul style="list-style-type: none"> <li>○ It allows the user to provide the actual readings of the signal strength at a given point in JumpPad.</li> <li>○ The user will have to go to the location of measurement point, measure data, and come back to JumpPad to type in the data to correct coverage contours.</li> </ul> </li> <li>• <b>RF Coverage Verification Design</b> <ul style="list-style-type: none"> <li>○ User imports the floor into the plan. (pg. 38)</li> <li>○ User can create new RF measurement points or edit existing measurement points. (pg. 38)</li> <li>○ User selects the RF measurement points that need to be applied to correction of RF coverage. (pg. 39)</li> </ul> </li> </ul> <p><b>C4)</b></p> <ul style="list-style-type: none"> <li>• <b>Managing Design Constraints</b> <ul style="list-style-type: none"> <li>○ Design constraints can be applied on the entire floor or an individual coverage area, and changes to floor design constraints will be applied to any new coverage area. (pg. 20).</li> </ul> </li> </ul>	<p>based at least on the measured wireless local area network data, changing one or more of: the floor plan data about the site of the wireless local area network, the quantity of the plurality of access points, the placement of the plurality of access points, and the configuration of the plurality of access points.</p>
--	---

- V. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, (18 U.S.C. §1001) and that such willful false statements may jeopardize the validity of this application or any patent issued thereon.



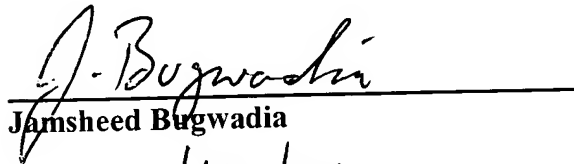
Allan Thomson

Date: 5/22/06



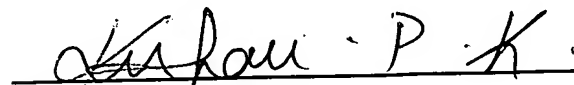
Sudhir Srinivas

Date: 5/22/06



Jamsheed Bugwadia

Date: 5/18/06



Pudumane K. Kishan

Date: 05.26.06